

October 16, 2017

Mr. Conor Neal
Geologist
EPA Region 5
Land & Chemicals Division
77 West Jackson Blvd, LU-9J
Chicago, IL 60604-3590

Subject: Quarterly Progress Report (July through September 2017)
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP
Stanton Street Facility
Marinette, Wisconsin
WID 006 125 215

Dear Mr. Neal:

Section VI, 21, b (Page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009, requires Tyco Fire Products LP (Tyco) to submit quarterly progress reports to the U.S. Environmental Protection Agency (USEPA) Region 5 and the Wisconsin Department of Natural Resources (WDNR). The reports are required to document activities conducted as part of the Resource Conservation and Recovery Act (RCRA) Corrective Actions at the Tyco facility in Marinette, Wisconsin. The enclosed report covers the period from July 1, 2017 through September 30, 2017, and presents a brief description of the work completed to date, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC.

Work Completed During this Reporting Period

Operation of the groundwater collection and treatment system (GWCTS) continued through the third quarter of 2017. A summary of the operational data is included as Attachment 1. The Discharge Monitoring Reports (DMRs) are included in Attachment 2.

The Fall Semi-Annual Barrier Wall Inspection was completed on September 8, 2017 by Ryan Suennen and Jeff Danko from Tyco. The boat for the river side inspection was provided and operated by MJB Industries. During the river side inspection, 5 additional tieback connections in the main plant area of the site were noted to have dripping water. These tieback connections were in addition to the 20 connections that were tightened and sealed following the spring inspection. MJB was contracted to correct the leaks, and repairs were completed on September 14, 2017. The details of the inspection are included in Attachment 3.

The second of four rounds of the surface water sampling was completed on September 8, 2017 by Ryan Suennen and Jeff Danko. Results from the event, a figure depicting sample locations, and a cumulative table of the results thus far are included in Attachment 4.

Additional surface water sampling events will be completed in October 2017 and in Spring 2018.

The temporary dewatering system continued operations in the third quarter. Approximately 95,060 gallons of groundwater has been extracted during this project to date. Summaries of this work continue to be sent as bi-weekly reports.

Additional Activities

A pilot study of the dye test was performed the week of September 18th at the site. The results of this study are under review and will be reported in the fourth quarter.

A meeting was held on July 25, 2017 at the USEPA Chicago office to discuss the Pump Down Program status and Tyco's proposed path forward to address a permanent approach to management of the area.

Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of the Wisconsin Pollutant Discharge and Elimination System (WPDES) permits obtained from WDNR for operation of the GWCTS. The GWCTS operates under permit WPDES WI-0001040-07-0. Attachment 2 includes the monthly WPDES DMRs for July 2017 through September 2017 for the GWCTS. Additional data on the operation of the GWCTS is included in Attachment 1.

Groundwater elevation data were collected from monitoring wells located in the former 8th Street Slip and Salt Vault as part of the pump down program. As documented in the April submittal of the water level data, Tyco installed permanent extensions on the majority of the monitoring wells in the pump down area. The elevation survey for these monitoring wells was completed in the third quarter as was a survey of the vertical barrier sheet pile wall along the river. This data will be included in the annual report

Groundwater elevation data recorded by installed transducers was downloaded on July 6, 2017 and is under evaluation. Transducers collect data hourly. The site-wide data will be provided in the annual report.

Problems Encountered

During the groundwater system trial run of more heavily impacted pump down water the system experienced 5 exceedances of discharge criteria and were reported to the WDNR. These exceedances were detected promptly due to the agreed upon additional quick turnaround testing performed during the trial period, which minimized the amount of water discharged that did not meet discharge criteria. A summary of the groundwater trials will be sent as a separate document.

During the pump down program operation, operational problems and shut downs at the designated disposal facility in Vickery, OH resulted in restricted pumping rates which greatly limited our ability to achieve the target elevations in the former Salt Vault and 8th St.

Slip areas of the site. The pump down project will continue operation into the 4th quarter until cold weather forces a shutdown.

Schedule of Upcoming Activities

The following is a summary of activities to be conducted during the next reporting period.

- Submit the quarterly progress report.
- Complete semi-annual barrier wall monitoring sampling.
- Complete transducer data download.
- Collect additional round of surface water samples.
- Submit report on the dye test pilot
- Implement the planned storm water management and storm sewer improvements.
- Collect samples from storm sewers upon completion of storm sewer improvements.
- Revise SPCC and SWPPP to reflect changes in storm water management.
- Submittal annual financial assurance cost estimate.

List of Key Correspondence and Document Submittals

Table 1

Documents Submitted

Quarterly Progress Report (July through September 2017), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Quarterly Progress Report	USEPA	July 17, 2017
Pilot Dye Test Work Plan	USEPA	August 14, 2017
RTC Pilot Dye Test Work Plan	USEPA	September 1, 2017
PDP RTM July 25,2017	USEPA	September 11, 2017

Table 2

Correspondence from Agency

Quarterly Progress Report (April through June 2017) Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Received From	Date Received
Letter on GW Sampling Requirements	USEPA	August 9, 2017
July 25, 2017 Meeting Follow-up	USEPA	August 10, 2017

Please contact me at 715-587-6670 if you have any questions or require additional information.

Respectfully Yours,

Tyco Fire Products LP

Ryan Suennen

Ryan Suennen
Environmental Field Projects

Attachments

- 1 GWCTS Operation Summary
- 2 DMRs for the GWCTS
- 3 VBW Inspection Summary
- 4 Surface Water Sample Results

cc: Kristin DuFresne, WDNR
Jim Killian, WDNR
Joe Janeczek, Johnson Controls
Rich Mator, Johnson Controls
Scott Stacy, Tyco Fire Products LP
Jeff Danko, Tyco
Mariel Carter, Stephenson Public Library

Document Control No.: 20171016 US10.11014

Attachment 1
GWCTS Operation Summary

Groundwater Collection and Treatment System Operation

SUBJECT: Groundwater Collection and Treatment System Operation for Tyco Fire Products LP, Marinette, Wisconsin

DATE: October 13, 2017

Operation of the groundwater collection and treatment system (GWCTS) occurring from July 1, 2017 through September 30, 2017 is summarized below:

- The GWCTS operated for 11 days in July, 16 days in August, and 13 days in September, for a total of 40 days.
- Approximately 140,050 gallons of reject water was produced during system operations and subsequently disposed of off site.
- The precipitation recorded from the weather station in Marinette, Wisconsin as 11.27inches of rain. (<https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail>).
- An estimated total of 396,987 gallons was discharged to the Menominee River as effluent under WPDES permit.
- An estimated total of 531,348 gallons of groundwater were extracted (not including volumes extracted as part of the pump down program) from the site during the reporting period. Details of water volumes extracted from each area of the site and changes in water levels are shown in the Table 1 below.

Table 1 - Extraction Well Data Summary

Extraction Well	Gallons Run Q3 2017 (7/01/2017-9/30/2017)	Gallons Run Q3 2016 (7/01/2016-9/30/2016)
EW-1	69,727	28,093
EW-2	37	2,588
EW-3	3,626	0
EW-4	3,949	10,254
EW-5	171,579	141,679
EW-6	166,120	358,944
EW-7	116,120	254,093
Total	531348	795,651

Attachment 2
DMRs

Attachment 3
Barrier Wall Inspection Summary

Quarter 3 Fall Vertical Barrier Wall Inspection Summary

The 2017 Quarter 3 Vertical Barrier Wall Visual Inspection was performed by Ryan Suennen and Jeff Danko of Tyco. The inspection was completed on 9/8/17. The Inspection observations are below.

Observation 1

During the river side inspection of the Barrier Wall in the main plant area of the facility, Tyco noted 5 localized instances where site groundwater was dripping from the penetrations in the wall created to support the tieback structure. The general location of the leaks is shown by the figure on the next page. These leaks were located downriver from the leaks noted in the spring inspection. MJB was immediately contracted to tighten and seal the tieback bolts in a manner consistent with previous similar work. This work was completed on 9/14/17. Tyco will follow-up in the 2018 second quarter to verify the corrective actions taken continue to be effective at stopping the leaks. In all, 25 tie rod connections showed some signs of potential leakage between the spring and fall inspections and all were tightened and sealed. Tyco plans to tighten and seal the remaining tie rod connections that were not leaking once they are again exposed in 2018 as a preventative action.

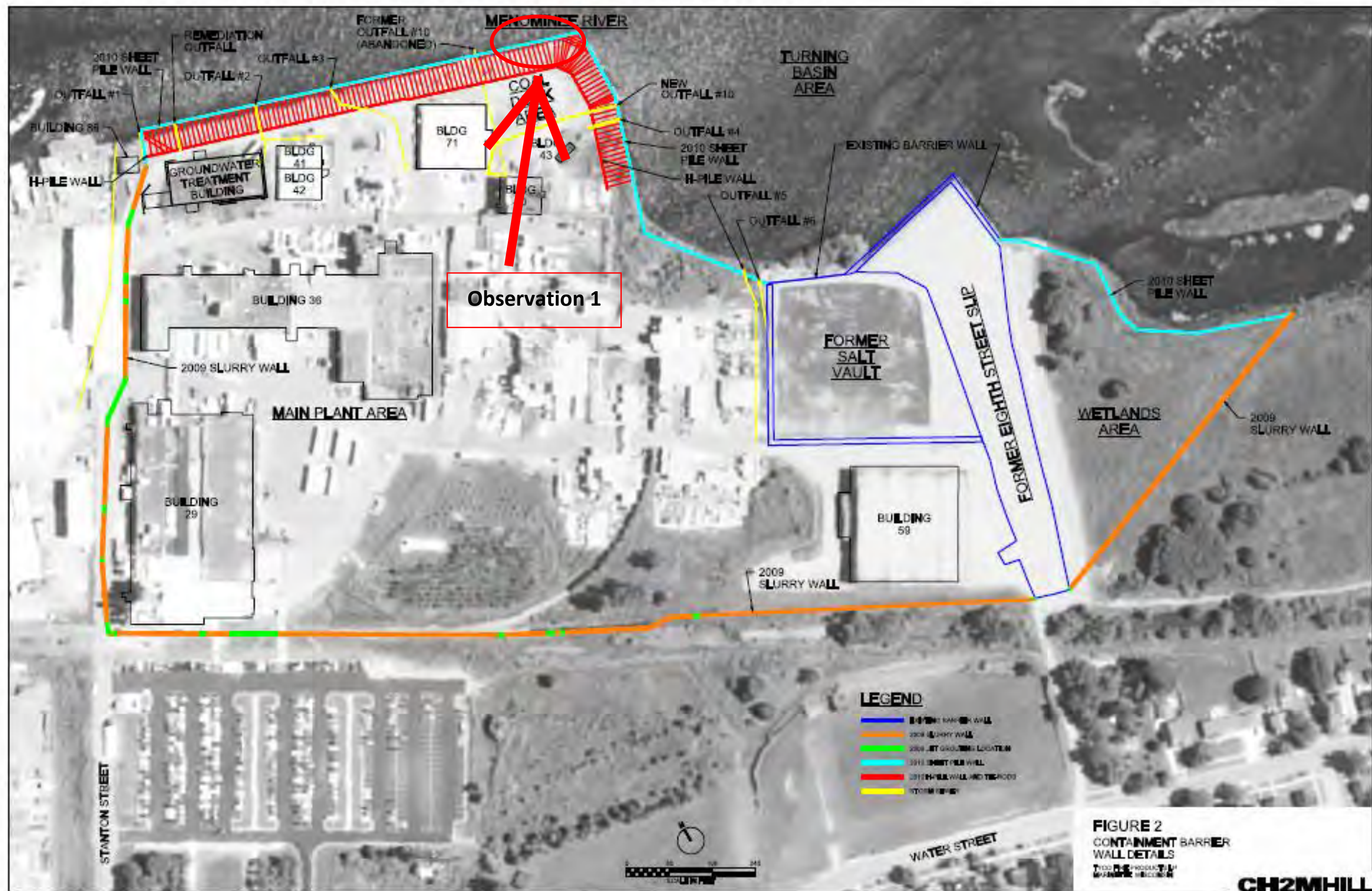


FIGURE 2
CONTAINMENT BARRIER WALL DETAILS
BY AND FOR
CH2MHILL

Attachment 4
Surface Water Sampling Results

Surface Water Sample Results Data Table Quarterly Report 10/16/17

Sample Locations	9/26/2017	9/8/2017	6/7/2017
Upstream 1	N/A	0.00083	0.0011
Downstream 2	N/A	0.0011	0.0012
Downstream 2 Duplicate	N/A	0.0011	N/A
Downstream 3	N/A	0.0011	0.0012
Downstream 3 Duplicate	N/A	N/A	0.0011
Downstream 4	N/A	0.00093	0.0012
Marinette City Intake (Green Bay)	0.0011	N/A	0.00077
Menominee City Intake (Green Bay)	0.0011	N/A	0.0012
Field Blank	N/A	N/A	0.00015

*all results in mg/L



Figure 2
 Water Quality Sampling Locations
 Tyco Fire Products LP Facility
 Marinette, WI